

Case 3588***Brachystoma* Meigen, 1822 (Insecta, Diptera, BRACHYSTOMATIDAE):
proposed conservation of usage**

Neal L. Evenhuis

*J. Linsley Gressitt Center for Entomological Research, Bishop Museum,
1525 Bernice Street, Honolulu, Hawaii 96817-2704, U.S.A*

(e-mail: NealE@bishopmuseum.org)

Bradley J. Sinclair

*Canadian National Collection of Insects & Canadian Food Inspection
Agency, Ottawa Plant Laboratory - Entomology, K.W. Neatby Bldg.,
C.E.F., 960 Carling Ave., Ottawa, ON, Canada K1A 0C6*

(e-mail: bradley.sinclair@inspection.gc.ca)

Abstract. The purpose of this application, under Article 70.2 of the Code, is to conserve the current usage of the generic name *Brachystoma* Meigen, 1822 for a well-established genus of brachystomatid flies. The type species of *Brachystoma* has long been assumed to be *Syrphus vesiculosus* Fabricius, 1794, designated by Blanchard in 1840. However, the correct type species is *Brachystoma longicornis* Meigen, 1822, designated by Westwood in 1840, which is currently recognized as a valid species of *Trichopeza* Rondani, 1840. Acceptance of the earlier designation would threaten stability of nomenclature and taxonomy of the common and worldwide genus-group name *Brachystoma* Meigen, 1822 and make it the senior synonym of *Trichopeza* Rondani, 1840, thus requiring species in *Brachystoma* to be associated with the next available generic name *Blepharoprocta* Loew, 1862. To avoid the nomenclatural instability that would result from following the Principle of Priority, it is proposed that all type fixations for *Brachystoma* Meigen, 1822 prior to that of *Syrphus vesiculosus* Fabricius, 1794 by Blanchard (1840) be set aside.

Keywords: Nomenclature; taxonomy; Diptera; BRACHYSTOMATIDAE; *Brachystoma*; *Syrphus vesiculosus*; *Brachystoma longicornis*; *Trichopeza*; brachystomatid flies; worldwide.

1. Meigen (1822, p. 12) proposed the generic name *Brachystoma* for two species: *Brachystoma longicornis* Meigen, 1822 and *Syrphus vesiculosus* Fabricius, 1794. A type species was not designated.

2. Westwood (1840, p. 132) designated *Brachystoma longicornis* Meigen, 1822 as the type species of *Brachystoma*. This designation was overlooked by subsequent authors until recently and is the earliest subsequent designation of an originally included species.

3. Blanchard (1840, p. 582) designated *Syrphus vesiculosus* Fabricius, 1794 (p. 299) as the type species of *Brachystoma*. The universally accepted concept of *Brachystoma* is based on this type species designation.

4. The priority of the type-species designation of Westwood (1840 [June]) over that of Blanchard (1840 [26 December]) was first noted in Evenhuis (1994, p. 345), where it was decided 'In the interests of stability of nomenclature and common usage, an earlier type designation by Westwood (1840: 132) of *Brachystoma longicornis* Meigen, which would make *Brachystoma* a senior synonym of *Trichopeza* Rondani, is here set aside. Application to the I.C.Z.N. to suppress Westwood's designation in favor of Blanchard's is necessary'. Sabrosky (1999) echoed the sentiment for such an application; and this is that application alluded to. To show evidence of the long-established and common usage of *Brachystoma*, a list of 25 publications in the last 50 years is held by the Secretariat of the Commission.

5. *Brachystoma* Meigen, 1822 is found primarily in the Northern Hemisphere zoogeographical regions, contains almost a dozen taxonomically valid species-group names (Plant, 2010), and is the type genus of the family BRACHYSTOMATIDAE Melander, 1908 (Sabrosky, 1999). The world catalogue of EMPIDIDAE (Yang et al., 2007), recent regional catalogues of Diptera and recent taxonomic works record *Brachystoma* as a taxonomically valid genus occurring in the Nearctic (e.g. Melander, 1965; Poole, 1996), Neotropical (e.g. Plant, 2010), Oriental (e.g. Plant, 2010), and Palearctic (e.g. Chvála & Wagner, 1989) regions. Species previously recorded in *Brachystoma* in the Afrotropical Region (Smith, 1980) were transferred to the genus *Rubistella* Garret Jones, 1940 by Sinclair (1995).

6. Nomenclatural instability would result from the adoption of *Brachystoma longicornis* as the type species of *Brachystoma* as designated by Westwood (1840, p. 132). *Brachystoma longicornis* is currently treated as a species of *Trichopeza* Rondani, 1856 (p. 150) (e.g. Chvála & Wagner, 1989; O'Hara et al., 2011). Acceptance of *B. longicornis* as the type species of *Brachystoma* would result in the subjective synonymy of *Brachystoma* and *Trichopeza*, with *Brachystoma* having priority. The genus currently known as *Trichopeza* would take the name *Brachystoma* (with *Trichopeza* in subjective synonymy). The genus currently known as *Brachystoma* would take the name *Blepharoprocta* Loew, 1862 (p. 194) (the next available genus-group name). Collin (1961) noted that the designation of the types of *Brachystoma* by Westwood and Blanchard were in the same year and implied that the exact dates of publication (not known at that time) might create problems in generic concept. He further stated: 'By accepting priority of Blanchard's designation the use of both names [*Brachystoma* Meigen, 1822 and *Trichopeza* Rondani, 1856] in their present sense can be retained.' We concur that this is the most pragmatic course to take.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all type species fixations for the nominal genus *Brachystoma* Meigen, 1822 before that of *Syrphus vesiculosus* Fabricius, 1794 by Blanchard (1840);
- (2) to place on the Official List of Generic Names in Zoology the name *Brachystoma* Meigen, 1822 (gender: feminine), type species *Syrphus vesiculosus* Fabricius, 1794 by subsequent designation of Blanchard (1840), as ruled in (1) above;
- (3) to place on the Official List of Specific Names in Zoology the name *vesiculosus* Fabricius, 1794 as published in the binomen *Syrphus vesiculosus* (specific name of the type species of *Brachystoma* Meigen, 1822);

- (4) to place on the Official List of Family Names in Zoology the name BRACHYSTOMATIDAE Melander, 1908 (type genus *Brachystoma* Meigen, 1822).

References

- Blanchard, C.E.** 1840. Vol. III. Histoire naturelle des insectes. Orthoptères, névroptères, hémiptères, hyménoptères, lépidoptères et diptères. In: Laporte, F.L.N. de C., *Histoire naturelle des animaux articulés. Annélides, crustacés, arachnides, myriapodes et insectes*. 672 pp. Duménil, Paris. [26 December]
- Chvála, M. & Wagner, R.** 1989. Family Empididae, pp. 228–336 in Soós, Á. & Papp, L. (Eds.), *Catalogue of Palaearctic Diptera*. Volume 6. Therevidae—Empididae. 435 pp. Elsevier Science Publishers, Amsterdam & Akadémiai Kiadó, Budapest.
- Collin, J.E.** 1961. Empididae. In: British flies. Volume 6. 782 pp. University Press, Cambridge, U.K.
- Evenhuis, N.L.** 1994. *Catalogue of the fossil flies of the world (Insecta: Diptera)*. 600 pp. Backhuys Publishers, Leiden.
- Fabricius, J.C.** 1794. *Entomologia Systematica*, vol. 4. 472 pp. C.G. Proft, Hafniae.
- Loew, H.** 1862. Diptera Americae septentrionalis indigena. Centuria secunda. *Berliner Entomologische Zeitschrift*, **6**: 185–232.
- Meigen, J.W.** 1822. *Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. Dritter Theil*. x, 416 pp. Schultz-Wundermann, Hamm.
- Melander, A.L.** 1908 Family Empididae. Pp. 218–227 in Williston, S.W. *Manual of North American Diptera. Third Edition*. 405 pp. J.T. Hathaway, New Haven.
- O'Hara, J.E., Cerretti, P., Pape, T. & Evenhuis, N.L.** 2011. Nomenclatural studies toward a world list of Diptera genus-group names. Part II: Camillo Rondani. *Zootaxa*, **3141**: 1–268.
- Plant, A.R.** 2010. *Brachystoma* Meigen (Diptera: Empidoidea: Brachystomatidae) new to the Oriental (Indo Malayan) Realm: A new species from Thailand. *Tropical Natural History*, **10**(1): 61–66.
- Poole, R.W.** 1996. Diptera. Pp. 15–604 in Poole, R.W. & Gentili, P. (Eds.), *Nomina Insecta Nearctica. A checklist of the insects of North America*. Volume 3: Diptera, Lepidoptera, Siphonaptera. 1143 pp. Entomological Information Services, Rockville, Maryland.
- Rondani, C.** 1856. *Dipterologiae Italicae prodromus*. Vol: I. Genera Italica ordinis dipterorum ordinatim disposita et distincta et in familias et stirpes aggregata. 226, [2] pp. A. Stocchi, Parmae [= Parma].
- Sabrosky, C.W.** 1999. Family-group names in Diptera. An annotated catalog. *Myia*, **10**: 1–360.
- Sinclair, B.J.** 1995. Generic revision of the Clinocerinae (Empididae), and description and phylogenetic relationships of the Trichopezinae, new status (Diptera: Empidoidea). *The Canadian Entomologist*, **127**: 665–752.
- Smith, K.G.V.** 1980. Family Empididae. Pp. 431–442 in Crosskey, R.W. (Ed.), *Catalogue of the Diptera of the Afrotropical Region*. 1437 pp. British Museum (Natural History), London.
- Westwood, J.O.** 1840. Order XIII. Diptera Aristotle. (Antliata Fabricius. Halteriptera Clairv.). Pp. 125–154 in: *An introduction to the modern classification of insects; founded on the natural habits and corresponding organisation of the different families. Synopsis of the genera of British insects*. 158 pp. Longman, Orme, Brown, Green & Longmans, London.
- Yang D., Zhang K.-Y., Yao G. & Zhang J.-H.** 2007. *World catalog of Empididae (Insecta: Diptera)*. vi, 599 pp. China Agricultural University Press, Beijing.

Acknowledgement of receipt of this application was published in BZN **69**: 84.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).